

tion of data that, for the most part, are derived from previously published material. This volume does not suffer from an excessive publication lag, which frequently afflicts symposia proceedings. There is a great deal of evidence linking separation and depression and health

and disease, but these data have been and continue to be accumulated slowly. If bringing this material together in a single volume conveys the importance and the complexities involved in understanding these phenomena, a useful purpose will have been served.

the editors, work in the area of cognitive mapping offers few contributions on a theoretical level. As a consequence, the section seems to be primarily devoted to establishing that both men and animals develop and use cognitive representations of their spatial environment. This is effectively accomplished by the inclusion of Tolman's classic paper, "Cognitive Maps in Rats and Men," and a paper by Stea and Blaut on cognitive representation in children. The section's final chapter provides the book's only concrete theoretical approach to how and why cognitive maps are formed and how they operate. In it, psychologist Stephen Kaplan offers a persuasive argument that spatial cognition is part of the general cognitive process of learning and proposes a Hebbian-like model of the development of cognitive maps.

The second section is concerned with the classification of the nature and attributes of the spatial environment. These chapters suggest the development of an increasingly sophisticated methodology in the assessment of cognitive maps and an increased understanding of the interrelationship between spatial environment and behavior. The section includes especially interesting chapters by Lee on cognitive maps of neighborhoods and Orleans on the relationship between various socioeconomic variables and cognitive maps.

The third section, concerned with spatial preferences, includes only a single chapter authored by geographer Peter Gould. Gould assesses residential desirability in the United States, Europe, and Africa, and attempts to reconstruct the cognitive maps of early settlers of New York State. His important analysis suggests that preference for a specific geographic area is strongly related to the amount of information available concerning that area. He further suggests that the availability of information is related to such factors as distance of the target area from the point of perception, the population of the target area, and information passed down in the family or culture.

Chapters by Gould and by Stea and Blaut in the section on the development of spatial cognition are primarily concerned with age as an indicant of access to information and/or experience with

## How Do You Get There from Here?

Roger M. Downs and David Stea (Eds.)

*Image and Environment: Cognitive Mapping and Spatial Behavior.*  
Chicago: Aldine, 1973. Pp. xxii + 439. \$15.00.

Reviewed by SHELDON COHEN

*Roger M. Downs is Associate Professor of Geography, Pennsylvania State University. A PhD in geography of University of Bristol, he has taught at Johns Hopkins University. He wrote chapters for Board's Progress in Geography, Vol. 2, and Colledge and Moore's Environmental Knowing. David Stea is Professor of Architecture and Urban Planning, University of California, Los Angeles. A PhD in experimental psychology of Stanford, he has been Associate Professor of Psychology and Geography, Clark University, and has had visiting appointments at Universidad Nacional Autónoma de México, Université de Montréal, and Universiti Sains Malaysia. He contributed chapters to Lang, Burnette, Moleski, and Vachon's Designing for Human Behavior and Pastalan and Carson's Spatial Behavior of Older People.*

*Sheldon Cohen is Assistant Professor of Psychology, University of Oregon. He is a PhD in social psychology of New York University. He wrote "Social Psychology and Social Problems" in Gazzaniga's Foundations of Psychology. During 1969-73, he was NIMH Trainee at the Research Center for Human Relations.*

**I**N response to increasing concern about the impact of the physical environment on human behavior, members of the social science and design disci-

plines have accomplished an unusual level of interdisciplinary coordination and communication. This book is a product of this cross-fertilization. Topics treated by the contributors cut across most areas of psychology and involve matters of interest to a variety of disciplines, including geography, sociology, anthropology, and the design professions.

The book is about cognitive processes in spatial behavior. More precisely, it is about cognitive maps—internal representations of one's spatial environment. Of what importance is a cognitive map? Consider the problem of running out of milk and needing to go to the store. A cognitive map of your neighborhood is employed to answer several pertinent questions. Which store is likely to sell milk? Where is that store? Where am I? How do I get there from here? How far away is it? Thus, it includes information on the relative location and attributes of phenomena in the spatial environment, information that aids in making decisions.

The volume is organized into sections according to six content areas: theory, cognitive representations, spatial preference, development of spatial cognition, geographic and spatial orientation, and cognitive distance. The title of the first section, "Theory," suggests a selection of papers that develop theoretical frameworks and provide explanations and predictions. However, as suggested by

the environment (i.e., learning process). Among other things, Stea and Blaut suggest that television and environmental toys (e.g., model houses, vehicles) aid in the development of cognitive maps. Unfortunately, data concerning this interesting hypothesis is, at this point, inconclusive. A different emphasis, on structural-development rather than learning, is employed by Hart and Moore in a comprehensive, if somewhat tedious, review of the literature on development of spatial cognition.

A short section on spatial orientation provides a brief discussion on how one finds where one is and where one is going. Included is a chapter by Lynch emphasizing cultural differences in orientation and developing the importance of selective attention and cognitive distortion in spatial mapping processes.

The final section contains a potpourri of articles concerned with the perception of distances and its relations to various structural and personal variables. Included in this collection is a fascinating article by Lundberg (that doesn't really fit snugly into the categorization) on emotional involvement as a function of spatial and temporal distance.

The topics covered by the book are not exhaustive and, in fact, strongly reflect the combination of the editors' own disciplines—geography and psychology. This bias offers a fruitful outcome for the interested social scientist, but does limit the book's value to those interested in environmental design and consumer planning, who would have profited from a section on the practical applications of cognitive mapping concepts.

The book suffers to some degree from the terminological problems inherent in an interdisciplinary collection. For example, the word "schema" was used in at least three different ways. There is, however, a reasonable attempt by both the editors and individual authors to define each concept of concern and to avoid jargon.

In putting this collection of readings together the editors aspired to satisfy the needs of three potential audiences: the social scientist with a general interest in spatial behavior, the current researcher in cognitive mapping, and the student. They have been quite success-

ful in creating a book for the first two audiences, a little less so for the third. The social scientist with a general interest in the area finds a good overview of cognitive mapping covering basic concepts, methods, and existing data. The current researcher is placated by a series of original articles (approximately 80% were solicited for the book) and an extensive bibliography. The student is aided by integrative introductions to each section. He may have fared better, however, with a different set of readings that put less emphasis on long reviews of the literature and more on

the development of specific important concepts.

**T**HIS collection of papers will not provide the reader with a comprehensive understanding of the cognitive processes involved in spatial behavior, because that level of comprehension is as yet nonexistent. It does, however, provide a well organized and integrated description of the "state of the art." Moreover, it points the way for future research, appropriately asking important, unanswered questions.

## Group Dynamics and Criminal Behavior: Three Separate Programs

Stuart Whiteley, Dennie Briggs, and Merfyn Turner

*Dealing with Deviants: The Treatment of Antisocial Behavior.* New York: Schocken Books, 1973. Pp. 248. \$8.50.

Reviewed by JOHN D. BURCHARD

*Stuart Whiteley has medical training and a psychiatric background. He was involved in a research project looking into the incidence of mental illness in vagrants and that led to an interest in drop-outs, deviants, and delinquents. He joined Merfyn Turner in working at Norman House, a residential community in London for the rehabilitation of ex-prisoners. Turner, the son of a Welsh nonconformist minister, was trained as a school teacher, but spent a brief spell in prison as a conscientious objector. This experience alerted him to inadequacies of the prison system. Dennie Briggs is a psychologist who first dealt with delinquents and deviants while with the U.S. Naval Hospital. He worked with Harry Wilmer on an experimental therapeutic community admissions ward, before the Navy assigned him to Henderson Hospital. He later entered the U.S. Prison Service.*

*Reviewer John D. Burchard is Professor of Psychology at the University of Vermont, where he is also Director*

*of the Youth Service Bureau. A PhD in clinical psychology of the University of Nebraska, Burchard has also taught at the University of North Carolina, and served as Director of the Intensive Training Program (a treatment program for delinquent retardates) in Murdoch Center, N.C., and as Research Psychologist at Fort Warden Treatment Center, Port Townsend, Washington. He is author of two book chapters, one in Lichtenberg's Handbook of Behavior Modification and Therapy and one in Bradfield's Behavior Modification: The Human Effort.*

*Dealing with Deviants* is a descriptive account of three separate programs designed to rehabilitate the delinquent and youthful offender. The programs are located at Henderson, a psychiatric hospital in England; in Chino, a prison in California; and in Norman House, a hostel or halfway house for ex-prisoners in London. Although the programs are physically